MUHAMMAD SAMI FAISAL

Software & Mobile Application Developer

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PROFILE

Computer Science graduate from FAST-NUCES with hands-on experience in software development, cloud, and AI-based systems. Experienced in building scalable applications, automating deployment workflows using AWS and CI/CD pipelines, and working across the full software development lifecycle. Eager to apply technical skills within a large-scale enterprise IT environment to drive operational efficiency and digital transformation.

WORK EXPERIENCE

Al-Madinah Islamic Research Center — May 2025 - August 2025

Application Developer Intern (Flutter)

- Designed app architecture of **Haji Helper App** from scratch for a maintainable, scalable codebase.
- Converted Figma designs into pixel-perfect, responsive Flutter screens across multiple device sizes.
- Rebuilt the entire UI mid-project based on revised requirements.
- Developed reusable UI components following Material Design principles.

PROJECTS

- **Cloud-Hosted Web App —** Dockerized full-stack application with infrastructure provisioned via Terraform; configured CI/CD pipelines and deployed to AWS ECS Fargate with RDS and CloudWatch monitoring.
- **Student Academic Dashboard —** Developed a React + Node.js + MySQL web application for managing and reporting student, teacher, and admin data with role-based access control, focused on database integration and structured data management (focused on database management).
- **Automating 2D Floor Plan in AutoCAD using NLP (Final Year Project)**— Trained an NLP model to classify text descriptions into structured architectural components, processed through constraint satisfaction algorithms to automatically generate 2D floor plans in AutoCAD.
- **ML Model Comparative Analysis —** Trained & evaluated multiple ML models including KNN, SVM, Decision Tree, K-Means, and Q-Learning for classification, clustering, and reinforcement learning on a Robotics dataset. Applied Bagging and Boosting ensemble techniques and presented a comparative performance analysis to derive insights on model selection.
- **Snake Playing AI Agent —** Trained an AI model using Python and Q-Learning to autonomously play Snake, achieving 100+ score after ~75 training iterations.
- **Autonomous Space Rover Navigator —** C++ pathfinding algorithms for Martian terrain simulation, visualized in Unity.

TECHNICAL SKILLS

Programming: C/C++, Python, Dart
Backend & APIs: Firebase, SQLite, MySQL, REST APIs, SQL, Database Management
Cloud & DevOps: AWS, CI/CD pipelines, Infrastructure as Code (Terraforms), Dockers, Git
Concepts: Data Structures, MVC Architecture, AI/ML Basics, Natural Language Processing
AI & Data: Machine Learning, NLP, Model Training & Evaluation, Q-Learning
Mobile Development: Flutter, Custom Widgets, Responsive UI, State Management (Provider & Riverpod)

EDUCATION

BS Computer Science — FAST-NUCES, Karachi - CGPA: 3.35

ACHIEVEMENTS & CERTIFICATIONS

- **Rector's Honors List –** Spring 2025
- **Dean's Honor List –** Fall 2024, Spring 2025, Fall 2025
- **Winner - SpaceTech Hackathon (KASBIT, Apr 2024)** — Autonomous Space Rover Navigator
- **CS50P Introduction to Programming with Python** — Harvard
- **Flutter & Dart - The Complete Guide [2025 Edition]**— Udemy